

# Employing Electromagnetic By-Product Radiation for Object Tracking

## *Patent Application*

### **Claims**

We claim:

- Claim 1. An automated system for following the movement of one or more marks placed upon one or more objects within a predefined area, the system comprising:
- one of retroreflective and a fluorescent ink forming at least one mark placed upon at least one object;
  - means for radiating energy throughout the predefined area;
  - means for receiving energy emanating from the one or more marks in response to the radiated energy; and
  - means responsive to the receiving means for determining the location of the one or more marks and therefore the location of the one or more objects onto which the marks have been placed.
- Claim 2. An automated system for following the movement of one or more marks placed upon one or more objects within a predefined area, the system comprising:
- one of retroreflective and a fluorescent ink forming at least one mark placed upon at least one object;
  - one or more lamps for radiating energy throughout the predefined area;
  - one or more video cameras for receiving energy emanating from the one or more marks in response to the radiated energy; and
  - a computer network responsive to the receiving means for determining the location of the one or more marks and therefore the location of the one or more objects onto which the marks have been placed.
- Claim 3. An automated system for following the movement of one or more marks placed upon one or more objects within a predefined area illuminated by one or more lamps emitting visible light and non-visible energy, the system comprising:
- one of a reflective, retroreflective, and fluorescent ink forming at least one mark placed upon at least one object;
  - means for receiving energy emanating from the at least one mark in response to the non-visible energy being radiated by the lamps; and

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means responsive to the receiving means for determining the location of the one or more marks and therefore the location of the one or more objects onto which the marks have been placed.

Claim 4. An automated system for following the movement of one or more marks placed upon one or more objects within a predefined area illuminated by one or more lamps emitting visible light and non-visible energy, the system comprising:

one of a reflective, retroreflective, and fluorescent ink forming at least one mark placed upon at least one object;

one or more visible light filtered cameras for receiving energy emanating from the at least one mark in response to the non-visible energy being radiated by the lamps; and

a computer network responsive to the receiving means for determining the location of the one or more marks and therefore the location of the one or more objects onto which the marks have been placed.

Claim 5. A system for reducing unwanted reflections of a selected energy off either foreground or background objects in a tracking, measurement, or identification apparatus, the system comprising:

a compound capable of absorbing selected energy; and

an applique for holding the absorbent compound on either foreground or background objects.

Claim 6. A system for reducing unwanted emissions of a selected energy from a foreground object in a tracking, measurement, or identification apparatus or from a material covering the foreground object, the system comprising:

a compound capable of either absorbing or reflecting the selected energy; and

an applique for holding the compound onto either the foreground object itself or onto the material covering the foreground object.